System and Method for Merchant Provided Pre-Printed Checks

BACKGROUND OF THE INVENTION

1. Technical Field

The present invention relates in general to a method and system for merchants to provide preprinted checks to customers.

2. Description of the Related Art

One of the most common business operations is billing customers for products or services and processing the responsive checks sent by customers. This task is manually intensive, both on the part of the merchant and on the part of customers.

Merchants typically maintain database files containing the customers' accounts. At the end of a billing cycle, often at the end of the month, the merchant processes these accounts using billing software. If a customer has a positive balance (i.e., the customer owes money), then a bill is created and mailed to the customer. Bills often have two or more parts. One part details the customer's account so that the customer is informed of the current charges. A second part, often removable from the first part via perforations, contains a summary of the customer's account, account number, and current outstanding balance. The customer returns the second part along with a check drawn off the customer's bank account to the merchant. The customer often returns the second part and the check in an envelope supplied by the merchant. These envelopes often

have small windows through which the merchant's return address, printed on the second part, is viewable.

The customer typically receives a variety of bills from a number of merchants and service companies. Keeping track of bills and writing out the corresponding checks is often an unpleasant task. Some customers pay bills late because of the hassle involved with preparing checks and returning the payment. Customers also make mistakes when writing checks, for example transposing digits and sending the check to the wrong merchant. Merchants often ask that customers write their account numbers on checks, this too is often neglected by customers writing checks.

Merchants receiving checks from customers face a variety of challenges. As mentioned before, the checks prepared by the customers may contain any number of errors. The checks are often manually inspected to make sure the check has been properly prepared by the customer. If errors are found, a corrective procedure is often initiated, such as contacting the customer and notifying the customer of the error. Customers' handwriting is often difficult to decipher by the merchant's employees assigned to the task. When a customer fails to write his or her account number on the check (and the check is separated from the second part of the bill), a manual database search must often be performed to identify the customer. Since many names are common, a mistake may be made crediting the check to the wrong account.

Another approach to paying bills is to set up an automatic withdrawal between the customer and the merchant. At the end of a billing cycle, the merchant, who has been

pre-approved to withdraw funds from the customer's bank account, simply withdraws the money electronically. This approach also faces challenges. First, customers are often resistant to allow a merchant to simply withdraw funds from the customer's bank account. This is especially true when the amount of the customer's bill varies from one billing cycle to the next. Second, it is more difficult for the customer to dispute charges from a merchant when the merchant has already withdrawn the disputed amount from the customer's bank account.

Late payment of bills and mistakes in customers' checks causes greater expenses, and consequently reduces merchants' profits. What is needed, therefore, is a system and method of providing the customer with preprinted checks drawn off the customer's own bank account. What is further needed is a way to make the customer's task of preparing checks simple in order to encourage the customer to return payment on a timely basis. Finally, what is needed is an identification of the user's account on the face of the check.

SUMMARY

It has been discovered that a preprinted check can be prepared to be drawn off the customer's bank account. The preprinted check has the correct amount printed in the amount field and has an identification of the customer's account in a memo field. In one embodiment, the customer's account is printed as a barcode so that the check, when signed and returned by the customer, can be scanned and entered into the merchant's system. In the "pay to the order of" field on the check, the merchant's name and billing address may appear so that the check may be returned in an envelope with a window.

The customer signs up for a preprinted check service with a merchant by providing the merchant with information about the customer's bank account (i.e., account number, bank routing number, etc.). This information can be provided using a check or voided check. The merchant uses the information in order to prepare preprinted check for subsequent billing cycles. In subsequent billing cycles, the customer receives his or her bill along with the preprinted check. To complete the billing process, the customer only needs to sign the check and return it in an envelope. Preferably, the check is returned in an envelope supplied by the merchant. The supplied envelope may include the merchant's name and address on the front of the envelope or may have a window through which the merchant's address, printed on the check or bill, appears.

The foregoing is a summary and thus contains, by necessity, simplifications, generalizations, and omissions

of detail; consequently, those skilled in the art will appreciate that the summary is illustrative only and is not intended to be in any way limiting. Other aspects, inventive features, and advantages of the present invention, as defined solely by the claims, will become apparent in the non-limiting detailed description set forth below.

BRIEF DESCRIPTION OF THE DRAWINGS

The present invention may be better understood, and its numerous objects, features, and advantages made apparent to those skilled in the art by referencing the accompanying drawings. The use of the same reference symbols in different drawings indicates similar or identical items.

Figure 1 is an illustration of a bill with an automatic check authorization form;

Figure 2 is an illustration of a bill including a preprinted check;

Figure 3 is a diagram of the interaction between a customer and a merchant to establish preprinted check delivery;

Figure 4 is a flowchart showing the processing of a user's request for preprinted checks;

Figure 5 is a flowchart showing the improved billing process using preprinted checks; and

Figure 6 is a block diagram of an information handling system capable of implementing the present invention.

DETAILED DESCRIPTION

The following is intended to provide a detailed description of an example of the invention and should not be taken to be limiting of the invention itself. Rather, any number of variations may fall within the scope of the invention which is defined in the claims following the description.

Figure 1 shows an illustration of a bill with an automatic check authorization form. Bill **100** includes top portion **110** and bottom portion **120** which are separated by a perforation between the two portions. Other pages may be included if further detail is needed or the account information is lengthy. Top portion **110** is retained by the customer in the customer's records, while bottom portion **120** is returned to the merchant, often in a merchant-supplied envelope. Bottom portion **120** includes account summary information **130** that describes the current amount due from the customer and the due date. Bottom portion **120** also includes automatic check authorization form **140**.

Automatic check authorization form **140** includes options for the customer to use in order to receive preprinted checks. The first option, "Use Bank Information from Included Check," informs the merchant to use the account number and bank routing number included on the check the customer has included in response to the current bill. The second option, "Use Information from Attached Voided Check," indicates that the customer is attaching a separate voided check, perhaps from a different bank account, from which the bank routing number and account

information should be gathered. The third option, "Use Following Information," provides an area for the customer to fill in the bank routing number and bank account number to be used in automatic checks. Finally, an Internet web site address is given to allow the customer to sign up for automatic check delivery using the company's web site, preferably a secured web site (i.e., using Secure Socket Layers (SSL) technology or other encryption technology to keep the customer's bank account information private).

Figure 2 shows an illustration of bill **200** including a preprinted check. After the customer signs up for automatic check delivery (i.e., using automatic check authorization form **140** shown in **Figure 1**), the merchant prepares the customer's bill, or invoice, and includes a preprinted check for the customer to sign and return to the merchant. Bill **200** includes top portion **210** which is substantially similar to top portion **110** shown in **Figure 1**. Top portion **210** includes a summary of the customer's current charges. Additional detail sheets may be provided if a more detailed description of charges is needed.

Preprinted check **220** is included with bill **210**. Preprinted check **220** can be included with a traditional bottom bill portion (see bottom portion **120** in **Figure 1**), or can include sufficient information (i.e., the customer's account information), so that preprinted check **220** can be returned to the merchant without the need for additional forms. Preprinted check **220** includes pay to the order field **230**. Pay to the order field **230** includes the merchant's name for cashing or depositing the check. In the example shown, merchant address information is included with pay to the order field to allow the use of a merchant

supplied envelope with a window through which the merchant's name and address appears for mailing purposes. In this manner, a large company with several bill processing centers can include a different mailing address for different groups of customers. For example, customers located in California may send their payments to one processing center whereas customers in New York may send their payments to a different processing center. The address for each customer's processing center can simply be printed below the company name in pay to order field **230** so that it appears in the envelope window.

The customer's name, as it appears on the check, voided check, or customer information provided to the merchant in **Figure 1**, is shown in account holder field **235**. Amount currently due **240** is shown both on top portion **210** and in the amount field on the check. Because the merchant generates both top portion **210** and preprinted check **220**, typographical or transpositional errors are substantially eliminated. An additional amount line on the check stating that "Thirty Seven Dollars and 91/100" is due may be provided as is common on many personal checks. Date due **250** is provided to inform the customer when the check is due at the merchant. This information can also be provided on top portion **210** so that the customer is clearly aware of when payment is due.

The bank information appearing on preprinted check **220** includes bank name and address **255**. Other bank information includes bank routing number **260**, used to identify the bank within the banking system. Sequence number **270** (shown as "0000" in **Figure 2**), is provided in the event that the merchant provides sequenced preprinted checks for the

customers' convenience in organizing and keeping track of their checking accounts. For example, the customer could request that a particular merchant's preprinted checks always be the same number (i.e., "8888") or begin with a certain number and increment sequentially from that point (i.e., 8000, 8001, 8002, etc.). Sequence numbers are not required on most checks, however, so the information can be left off the check to reduce the amount of overhead and processing required to prepare preprinted checks. Account number **280** is the customer's account number at his or her bank. Oftentimes, bank routing number **260**, sequence number **270**, and bank account number **280** are printed using a magnetic printing process that allows checks to be processed by the bank automatically rather than manually. The process for preparing preprinted check **220** preferably includes printing this information using a magnetic printing process.

To facilitate automated processing by the merchant, preprinted check **220** includes the customer's account number in memo field **290**. As shown, the account number printed in memo field **290** is printed in barcode format. In this manner, when preprinted check **220** has been signed by the customer and received by the merchant it can simply be scanned using a barcode reader. Other information, such as the amount of the check, can also be included in the barcode information so that the amount scanned can be compared with the amount of the check (i.e., $37.91), to ensure that preprinted check **220** was not tampered with before being received by the merchant.

When the customer receives preprinted check **220**, he or she simply reviews the account information and amount due

for this billing cycle, signs preprinted check **220** in signature field **295**, fills in the date field, and mails the check back to the merchant. As stated previously, an additional bottom form (as shown in **Figure 1**) may be provided and sent by the customer back to the merchant. Using a separate form in addition to preprinted check **220** facilitates the customer bypassing the preprinted check and writing out a different check for a different amount (i.e., in the event of an error on the bill or a billing dispute). This may be preferred in areas where billing disputes are more common (i.e., a credit card bill). In situations where billing disputes seldom occur, preprinted check **220** may be the only thing the customer returns to the merchant. Not having to keep track of multiple pieces of paper streamlines the bill collection process for these types of merchants.

Figure 3 shows the steps taken between a customer and a merchant to establish preprinted check delivery. Merchant **300** delivers bill / signup form **310** to customer **320**. The bill is typically a traditional bill that the customer satisfies with a personal check. Attached or included with bill / signup form **310** is a form that customer can use to sign up for preprinted check delivery (see **Figure 1** for an example of bill / signup form **310**). If customer **320** is interested in receiving preprinted checks, he or she responds by completing the sign up form and sending completed sign up form **330** back to merchant **300**. Merchant **300** uses the account information provided by customer **320** to prepare preprinted checks. During a subsequent billing cycle, merchant **300** provides bill / preprinted check **340** to customer **340** (see **Figure 3** for an example of bill /

preprinted check **340**). Customer **320** reviews the bill and, if satisfied, signs the preprinted check. Customer **320** then returns signed preprinted check **350** to merchant **300** for processing and crediting of the customer's account with the merchant.

Figure 4 shows a flowchart for processing a user's request for preprinted checks. Merchant processing commences at **400** whereupon a form is sent to the customer for preparing preprinted checks (step **405**). Blank form **410** may be included with the merchant's latest bill, mailed to the customer separately, or handled electronically (i.e., using the merchant's secured web site). Customer processing commences at **402** whereupon the customer receives the blank form (step **415**). The customer then gathers the information needed to complete the form (step **420**). This information can be gathered by sending the merchant a check or voided check from which the information is to be used or by having the user enter the information, such as the bank routing number and checking account number, on the form. After the information has been gathered, the user completes the form (step **425**) by attaching a check or voided check or by filling in the appropriate fields on the blank form. The customer then returns the completed form to the merchant (step **430**). The customer may return the completed form with the customer's latest payment, mail the form separately from the customer's payment, or send the form electronically (i.e., by using the merchant's online form system or by sending the information to the merchant using email). After the customer has returned the completed form, customer processing ends at end **435**.

Completed form **440** is received by the merchant (step **445**). The information provided by the customer is checked and processed (step **450**). Form processing includes capturing the user's account information and storing the information in customer data store **455**. After the information has been captured, merchant processing ends at end **460**.

Figure 5 shows a flowchart for improving the billing process using preprinted checks. Processing commences at **500** whereupon processing moves to the first customer in the merchant's data store (step **505**, i.e., a database). A check is made to ensure that the end of file on the database table or data file has not been reached (decision **510**). When the end of file has been reached, decision **510** branches to "yes" branch **512** and processing ends at **515**. On the other hand, if the end of file has not been reached (as should be the case with the first customer), decision **510** branches to "no" branch **518**. The customer's account is accessed and the current amount owed by the customer is read (input **520**). A decision is made whether to send the customer a bill (decision **525**). This decision may be if the customer's balance is less than or equal to zero, no bill is sent. Other decision criteria to determine whether a bill should be sent can be used as necessary by the merchant. If no bill should be sent to the merchant, decision **525** branches to "no" branch **530** whereupon a move next operation is performed to process the next customer (step **570**) which loops back to the end of file decision **510**.

If a bill should be sent, decision **525** branches to "yes" branch **532**. A bill is prepared for the customer

(step **535**) using the customer's current charges to prepare a detailed bill. The customer's profile is read (input **540**) to determine how the bill should be sent (i.e., traditional bill or preprinted check). Customer profile **545** includes the customer's bank account information used to prepare preprinted checks if the customer has signed up for the preprinted check option.

The profile information determines whether the merchant should prepare a preprinted check for the customer (decision **550**). If a preprinted check has not been requested, "no" branch **552** is taken an a traditional bill is printed and mailed to the customer (step **555**) before processing moves to the next customer (step **570**). On the other hand, if the customer has requested preprinted checks, decision **550** branches to "yes" branch **558** whereupon the customer prepares a preprinted check (step **560**) using the customer's bank account information previously supplied by the customer. The preprinted check and bill are printed and mailed to the customer (step **565**) before the system processes the next customer (step **570**). This processing continues until the end of file is reached on the customer file, in which case decision **510** branches to "yes" branch **512** and processing terminates at **515**.

Figure 6 illustrates information handling system **601** which is a simplified example of a computer system capable of performing the mobile telephone company operations. Computer system **601** includes processor **600** which is coupled to host bus **605**. A level two (L2) cache memory **610** is also coupled to the host bus **605**. Host-to-PCI bridge **615** is coupled to main memory **620**, includes cache memory and main

memory control functions, and provides bus control to handle transfers among PCI bus **625**, processor **600**, L2 cache **610**, main memory **620**, and host bus **605**. PCI bus **625** provides an interface for a variety of devices including, for example, LAN card **630**. PCI-to-ISA bridge **635** provides bus control to handle transfers between PCI bus **625** and ISA bus **640**, universal serial bus (USB) functionality **645**, IDE device functionality **650**, power management functionality **655**, and can include other functional elements not shown, such as a real-time clock (RTC), DMA control, interrupt support, and system management bus support. Peripheral devices and input/output (I/O) devices can be attached to various interfaces **660** (e.g., parallel interface **662**, serial interface **664**, infrared (IR) interface **666**, keyboard interface **668**, mouse interface **670**, and fixed disk (HDD) **672**) coupled to ISA bus **640**. Alternatively, many I/O devices can be accommodated by a super I/O controller (not shown) attached to ISA bus **640**.

BIOS **680** is coupled to ISA bus **640**, and incorporates the necessary processor executable code for a variety of low-level system functions and system boot functions. BIOS **680** can be stored in any computer readable medium, including magnetic storage media, optical storage media, flash memory, random access memory, read only memory, and communications media conveying signals encoding the instructions (e.g., signals from a network). In order to attach computer system **601** to another computer system to copy files over a network, LAN card **630** is coupled to PCI-to-ISA bridge **635**. Similarly, to connect computer system **601** to an ISP to connect to the Internet using a telephone

line connection, modem **675** is connected to serial port **664** and PCI-to-ISA Bridge **635.**

While the computer system described in **Figure 6** is capable of executing the invention described herein, this computer system is simply one example of a computer system. Those skilled in the art will appreciate that many other computer system designs are capable of performing the copying process described herein.

One of the preferred implementations of the invention is an application, namely, a set of instructions (program code) in a code module which may, for example, be resident in the random access memory of the computer. Until required by the computer, the set of instructions may be stored in another computer memory, for example, on a hard disk drive, or in removable storage such as an optical disk (for eventual use in a CD ROM) or floppy disk (for eventual use in a floppy disk drive), or downloaded via the Internet or other computer network. Thus, the present invention may be implemented as a computer program product for use in a computer. In addition, although the various methods described are conveniently implemented in a general purpose computer selectively activated or reconfigured by software, one of ordinary skill in the art would also recognize that such methods may be carried out in hardware, in firmware, or in more specialized apparatus constructed to perform the required method steps.

While particular embodiments of the present invention have been shown and described, it will be obvious to those skilled in the art that, based upon the teachings herein, changes and modifications may be made without departing

from this invention and its broader aspects and, therefore, the appended claims are to encompass within their scope all such changes and modifications as are within the true spirit and scope of this invention. For example, the bank account numbers, etc., may be placed on the preprinted checks differently depending on standards in other countries or based upon a particular situation. Furthermore, it is to be understood that the invention is solely defined by the appended claims. It will be understood by those with skill in the art that if a specific number of an introduced claim element is intended, such intent will be explicitly recited in the claim, and in the absence of such recitation no such limitation is present. For non-limiting example, as an aid to understanding, the following appended claims contain usage of the introductory phrases "at least one" and "one or more" to introduce claim elements. However, the use of such phrases should not be construed to imply that the introduction of a claim element by the indefinite articles "a" or "an" limits any particular claim containing such introduced claim element to inventions containing only one such element, even when the same claim includes the introductory phrases "one or more" or "at least one" and indefinite articles such as "a" or "an"; the same holds true for the use in the claims of definite articles.